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REMARKS

The Applicant has carefully reviewed and considered the Office Action of 4 November 2005 and as a preliminary matter wishes to express his appreciation for the substantive allowance of claims 7 and 15 set forth in that Office Action. In reply to this Office Action the Applicant rewrites claims 7 and 15 in independent form in order to place those claims in condition for allowance. In rewriting claim 15, the word "by" has been inserted as suggested by the Office thereby removing the basis for the rejection of claim 15. In addition, independent claims 1 and 9 are amended so as to more clearly patentably distinguish over the prior art. Further, claim 6 is amended to refer to "said cover layer" as suggested by the Office. Accordingly, the objection to claim 6 is now overcome.

Further, the Applicant hereby affirms the election of claims 1-16 for substantive review in the present application and the withdrawal of claims 17-22. The Applicant, however, explicitly maintains his right to pursue patent protection for withdrawn claim 17-22 in a subsequently filed divisional application.

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- A. Claims 1, 3, 5, 9, 11 and 13 clearly distinguish under the Patent Laws from U.S. Patent 4,801,495 to van der Hoeven when considered in combination with JP 2001-232700 to Kitamura et al.**

Independent claim 1 reads on a five step method for forming decorative panel products. The method includes the steps of preparing a substrate, applying a decorative image and alignment marks corresponding to an image data file to a surface of the substrate to form a printed substrate, detecting the alignment marks, aligning the printed substrate with a cutting device using the detected alignment marks and driving the cutting device using the image data file to produce a panel preform. As amended claim 1 provides that the substrate is made from a material selected from a group consisting of glass fibers, mineral fibers, polymeric fibers, polymeric foams and mixtures thereof. Support for this amendment is found at, for example, paragraph 20 of the specification.

The primary reference to van der Hoeven discloses a decorative panel incorporating a core layer and an underlay. The core layer may comprise pressure-stiffened bonded fabric or densified mats of mineral fibers, glass fibers, plastic fibers, or a mixture of fibers, but preferably cellulose. The underlay may comprise a pigmented or unpigmented bonded fabric or paper. Further, the patent provides that the panel may include a printed paper surface.

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It should be appreciated that the primary reference to van der Hoeven makes no reference whatsoever to alignment marks. Accordingly, the primary reference fails to teach or suggest the claimed applying, detecting, aligning and driving steps. In other words, the primary reference to van der Hoeven fails to teach four of the five steps set forth in claim 1.

Recognizing the shortcomings of the van der Hoeven reference, the Office combines van der Hoeven with the teachings of the Kitamura et al. reference. As noted by the Office, the Kitamura et al. reference teaches applying a decorative image and alignment marks to the surface of a substrate as shown in Figure 5. The alignment marks are detected with a sensor 29 and the printed substrate is aligned with a cutting device. Significantly, the substrate being printed with an image and alignment marks in the Kitamura et al. reference is paper. No other substrate is taught. Thus, it should be appreciated that whether considered alone or in combination, the van der Hoeven and Kitamura et al. references fail to teach or suggest the step of applying a decorative image and alignment marks corresponding to an image data file to a surface of a substrate made from a material selected from the group of glass fibers, mineral fibers, polymeric fibers, polymeric foams and mixtures thereof as set forth in present claim 1. Nor do these two references teach the concept of driving the cutting device using the image data file to cut the printed substrate made from this material in order to produce a panel preform.

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Even if the Kitamura et al. reference is combined with van der Hoeven the references do not teach or suggest the claimed invention. Significantly, the Kitamura et al. reference teaches only printing a paper substrate with an image and alignment marks and cutting that paper substrate. When this teaching is combined with the van der Hoeven reference one skilled in the art does not arrive at the claimed invention. At most one skilled in the art might find it obvious to print a cover layer of paper with an image and alignment marks and then cut that cover layer to size as taught in Kitamura et al. and illustrated in Figure 5 of that reference. The cut-to-size paper substrate would then be applied to the panel core made from a material selected from the group of glass fibers, mineral fibers, polymeric fibers, polymeric foams and mixtures thereof. The cut-to-size cover layer would, however, not provide any guidance for cutting the core material or panel preform to size. This is because the alignment marks 2a, 2b are cut from the cover layer at the time it is cut to size (note particularly Figure 5c of the Kitamura et al. reference). Thus, it should be appreciated that even when the references are combined they do not teach or suggest the claimed invention: that is, they do not teach or suggest the applying, detecting, aligning and driving steps of claim 1 for any substrate made from a material selected from the group of glass fibers, mineral fibers, polymeric fibers, polymeric foams and mixtures thereof. Accordingly, independent claim 1 very clearly patentably distinguishes over this prior art and should be formally allowed. Claims 3 and 5 which depend from

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claim 1 and are rejected on the same grounds, are equally allowable for the same reasons.

Independent claim 9, like claim 1, references a substrate made from glass fibers, mineral fibers, polymeric fibers, polymeric foams and mixtures thereof as described in the text at, for example, paragraph 20. Claim 9 also includes the step of driving the cutting device, using the transformed image file to cut the printed substrate and produce a panel preform. It is therefore clear that independent claim 9 patentably distinguishes from the van der Hoeven and Kitamura et al. references in the same manner as claim 1 and should be formally allowed. This is also true of independent claims 11 and 13 which depend from claim 9 and are equally allowable for the same reasons.

B. Claims 1, 2, 9 and 10 patentably distinguish over U.S. Patent Application 2003/0091758 to Osumi et al. when considered in combination with JP 2001-232700 to Kitamura et al.

While the primary reference in this rejection is the Osumi et al. reference rather than the van der Hoeven reference, claims 1, 2, 9 and 10 patentably distinguish for the same reasons. Specifically, the Osumi et al. reference, like the van der Hoeven reference, fails to teach or suggest four of the five steps set forth in claim 1. Specifically, the Osumi et al. reference fails to disclose the applying, detecting, aligning and driving steps. Thus, the Osumi et al. reference is no better a reference than the van der Hoeven patent. When the Osumi et al. reference is

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combined with the Kitamura et al. reference, the combination of references fails to support a rejection for the same reasons.

Specifically, the secondary reference to Kitamura et al. only teaches or suggests to one skilled in the art the concept of printing a cover layer of paper with an image and alignment marks and then trimming that cover layer to size. Even if that cover layer is then subsequently applied to a substrate made from glass fibers, mineral fibers, polymeric fibers, polymeric foams and mixtures thereof the alignment marks have already been trimmed from the cover layer and the cover layer provides no basis whatsoever for driving the cutting device using an image data file to cut the printed substrate and produce a panel preform as taught by the present invention. Accordingly, independent claims 1 and 9 and claims 2 and 10 dependent thereon patentably distinguish over these references and should be allowed.

C. Claims 1, 4, 8, 9, 12 and 16 patentably distinguish over U.S. Patent Application 2003/0041962 to Johnson et al. when considered in combination with JP 2001-232700 to Kitamura et al.

The primary reference to Johnson et al., like the previously considered primary references to van der Hoeven and Osumi et al., also fails to disclose four of the five steps of claim 1. Specifically, the Johnson et al. reference fails to disclose the same four steps as the other primary references. Those steps are the applying, detecting, aligning and driving steps.

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When the Johnson et al. and Kitamura et al. references are combined, the combination of references fails to provide a proper basis for the rejection of claims 1, 4, 8, 9, 12 and 16 for the reasons already set forth on the record in subsections A and B of this Amendment. Accordingly, these claims should be formally allowed.

D. Claims 6 and 14 clearly patentably distinguish over the van der Hoeven patent when considered in view of the Kitamura et al. reference and JP 2000-318389 to Hatori.


The Hatori reference is cited for its teaching relating to the application of a reverse decorative image to a transfer base 1 to form an image layer on the transfer base and the bringing of the image layer into contact with a cover layer 6 to transfer the majority of the image layer from the transfer base to the cover layer. This is followed by the applying of the cover layer to a surface of a substrate. While the Hatori reference may lead one skilled in the art to print a cover layer with a reverse decorative image from a transfer base as taught by Hatori, the combination of references otherwise fails to teach or suggest the claimed invention. This is because the Kitamura et al. reference then teaches that the cover layer of paper is to be cut-to-size utilizing alignment marks. As taught in the Kitamura et al. reference, those alignment marks are cut from the cover layer during the sizing process (note Figures 5a-5c). When the cover layer is subsequently applied to the substrate made from glass fibers, mineral fibers, polymeric fibers, polymeric foams and mixtures thereof, there are no longer any

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alignment marks to guide one in cutting the substrate to produce a panel preform of desired size matching the image data. Thus, the proposed three-way combination of references clearly fails to teach or suggest the invention as set forth in claims 6 and 14 which should be formally allowed.

E. Conclusion

In summary, substantively allowed claims 7 and 15 have been rewritten in independent form and should be formally allowed. Additionally, as amended, the remaining claims in the patent application clearly patentably distinguish over the cited prior art. Accordingly, they too should be allowed. Upon careful review and consideration it is believed the Office will agree with this proposition. Accordingly, the early issuance of a formal Notice of Allowance is earnestly solicited. If any fees are required in connection with this Amendment, they may be deducted from Deposit Account No. 50-0568.


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